



Citation and Notification of Penalty

To:
Croda Inc
315 Cherry Lane
New Castle, DE 19720

Inspection Number: 1361878
Inspection Date(s): 11/26/2018 - 05/23/2019
Issuance Date: 05/24/2019

Inspection Site:
315 Cherry Lane
New Castle, DE 19720

The violation(s) described in this Citation and Notification of Penalty is (are) alleged to have occurred on or about the day(s) the inspection was made unless otherwise indicated within the description given below.

This Citation and Notification of Penalty (this Citation) describes violations of the Occupational Safety and Health Act of 1970. The penalty(ies) listed herein is (are) based on these violations. You must abate the violations referred to in this Citation by the dates listed and pay the penalties proposed, unless within 15 working days (excluding weekends and Federal holidays) from your receipt of this Citation and Notification of Penalty you either call to schedule an informal conference (see paragraph below) or you mail a notice of contest to the U.S. Department of Labor Area Office at the address shown above. Please refer to the enclosed booklet (OSHA 3000) which outlines your rights and responsibilities and which should be read in conjunction with this form. Issuance of this Citation does not constitute a finding that a violation of the Act has occurred unless there is a failure to contest as provided for in the Act or, if contested, unless this Citation is affirmed by the Review Commission or a court.

Posting - The law requires that a copy of this Citation and Notification of Penalty be posted immediately in a prominent place at or near the location of the violation(s) cited herein, or, if it is not practicable because of the nature of the employer's operations, where it will be readily observable by all affected employees. This Citation must remain posted until the violation(s) cited herein has (have) been abated, or for 3 working days (excluding weekends and Federal holidays), whichever is longer.

Informal Conference – An informal conference is not required. However, if you wish to have such a conference you may request one with the Area Director during the 15 working day contest period by calling 302-573-6518. During such an informal conference you may present any evidence or views which you believe would support an adjustment to the citation(s) and/or penalty(ies).

If you are considering a request for an informal conference to discuss any issues related to this Citation and Notification of Penalty, you must take care to schedule it early enough to allow time to contest after the informal conference, should you decide to do so. Please keep in mind that a written letter of intent to contest must be submitted to the Area Director within 15 working days of your receipt of this Citation. The running of this contest period is not interrupted by an informal conference.

If you decide to request an informal conference, please complete, remove and post the Notice to Employees next to this Citation and Notification of Penalty as soon as the time, date, and place of the informal conference have been determined. Be sure to bring to the conference any and all supporting documentation of existing conditions as well as any abatement steps taken thus far. If conditions warrant, we can enter into an informal settlement agreement which amicably resolves this matter without litigation or contest.

Right to Contest – You have the right to contest this Citation and Notification of Penalty. You may contest all citation items or only individual items. You may also contest proposed penalties and/or abatement dates without contesting the underlying violations. Unless you inform the Area Director in writing that you intend to contest the citation(s) and/or proposed penalty(ies) within 15 working days after receipt, the citation(s) and the proposed penalty(ies) will become a final order of the Occupational Safety and Health Review Commission and may not be reviewed by any court or agency.

Penalty Payment – Penalties are due within 15 working days of receipt of this notification unless contested. (See the enclosed booklet and the additional information provided related to the Debt Collection Act of 1982.) Make your check or money order payable to “DOL-OSHA”. Please indicate the Inspection Number on the remittance. You can also make your payment electronically on www.pay.gov. On the left side of the pay.gov homepage, you will see an option to Search Public Forms. Type “OSHA” and click Go. From the results, click on OSHA Penalty Payment Form. The direct link is:

<https://www.pay.gov/paygov/forms/formInstance.html?agencyFormId=53090334>.

You will be required to enter your inspection number when making the payment. Payments can be made by credit card or Automated Clearing House (ACH) using your banking information. Payments of \$25,000 or more require a Transaction ID, and also must be paid using ACH. If you require a Transaction ID, please contact the OSHA Debt Collection Team at (202) 693-2170.

OSHA does not agree to any restrictions or conditions or endorsements put on any check, money order, or electronic payment for less than the full amount due, and will process the payments as if these restrictions or conditions do not exist.

Notification of Corrective Action – For each violation which you do not contest, you must provide *abatement certification* to the Area Director of the OSHA office issuing the citation and identified above. This abatement certification is to be provided by letter within 10 calendar days after each abatement date. Abatement certification includes the date and method of abatement. If the citation indicates that the violation was corrected during the inspection, no abatement certification is required for that item. The abatement certification letter must be posted at the location where the violation appeared and the corrective action took place or employees must otherwise be effectively informed about abatement activities. A sample abatement certification letter is enclosed with this Citation. In addition, where the citation indicates that *abatement documentation* is necessary, evidence of the purchase or repair of equipment, photographs or video, receipts, training records, etc., verifying that abatement has occurred is required to be provided to the Area Director.

Employer Discrimination Unlawful – The law prohibits discrimination by an employer against an employee for filing a complaint or for exercising any rights under this Act. An employee who believes that he/she has been discriminated against may file a complaint no later than 30 days after the discrimination occurred with the U.S. Department of Labor Area Office at the address shown above.

Employer Rights and Responsibilities – The enclosed booklet (OSHA 3000) outlines additional employer rights and responsibilities and should be read in conjunction with this notification.

Notice to Employees – The law gives an employee or his/her representative the opportunity to object to any abatement date set for a violation if he/she believes the date to be unreasonable. The contest must be mailed to the U.S. Department of Labor Area Office at the address shown above and postmarked within 15 working days (excluding weekends and Federal holidays) of the receipt by the employer of this Citation and Notification of Penalty.

Inspection Activity Data – You should be aware that OSHA publishes information on its inspection and citation activity on the Internet under the provisions of the Electronic Freedom of Information Act. The information related to these alleged violations will be posted when our system indicates that you have received this citation. You are encouraged to review the information concerning your establishment at www.osha.gov. If you have any dispute with the accuracy of the information displayed, please contact this office.



NOTICE TO EMPLOYEES OF INFORMAL CONFERENCE

An informal conference has been scheduled with OSHA to discuss the citation(s) issued on 05/24/2019. The conference will be held by telephone or at the OSHA office located at 919 Market Street, Suite 900, Wilmington, DE 19801 on _____ at _____. Employees and/or representatives of employees have a right to attend an informal conference.

CERTIFICATION OF CORRECTIVE ACTION WORKSHEET

Inspection Number: 1361878

Company Name: Croda Inc

Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Issuance Date: 05/24/2019

List the specific method of correction for each item on this citation in this package that does not read "Corrected During Inspection" and return to: **U.S. Department of Labor – Occupational Safety and Health Administration, 919 Market Street, Suite 900, Wilmington, DE 19801**

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

I certify that the information contained in this document is accurate and that the affected employees and their representatives have been informed of the abatement.

Signature

Date

Typed or Printed Name

Title

NOTE: 29 USC 666(g) whoever knowingly makes any false statements, representation or certification in any application, record, plan or other documents filed or required to be maintained pursuant to the Act shall, upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment of not more than 6 months or both.

POSTING: A copy of completed Corrective Action Worksheet should be posted for employee review



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 1 Type of Violation: **Serious**

29 CFR 1910.119(c)(2): The employer did not consult with employees and their representatives on the conduct and development of process hazards analyses and on the development of the other elements of process safety management in this standard:

a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to consult with operators and their representatives on the development of all hazard studies conducted as part of the pre-startup safety review, contributing to employee exposure to the toxic, fire, and explosion hazards posed by ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: 06/20/2019
Proposed Penalty: \$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

The alleged violations below have been grouped because they involve similar or related hazards that may increase the potential for injury or illness.

Citation 1 Item 2 a Type of Violation: Serious

29 CFR 1910.119(d)(3)(i)(B): The employer did not compile written process safety information including piping and instrument diagrams (P&ID's);

a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to update (finalize) the P&IDs before developing its final process hazard analysis and before conducting the pre-startup safety review of the EO plant. Incorrect or outdated P&IDs do not allow the employer and the employees involved in operating the process to identify and understand the hazards posed by the EO process exposing employees to the hazards of toxic and fire/explosion hazards.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: 06/20/2019
Proposed Penalty: \$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 2 b Type of Violation: Serious

29 CFR 1910.119(e)(1): The employer did not perform a complete initial process hazard analysis (hazard evaluation) on processes covered by this standard.

a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to perform an adequate initial PHA that was based on detailed design P&IDs when its 2015/2016 PHA prior to startup was based on information that pre-dated the Revision 0, set of P&IDs that were issued for construction. Incorrect or outdated P&IDs (e.g. Issued for Construction version) do not allow the employer and the employees involved in conducting PHAs or operating the process to identify and understand the hazards posed by the EO process exposing employees to the hazards of toxic and fire/explosion hazards.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

06/20/2019

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 3 Type of Violation: Serious

29 CFR 1910.119(d)(3)(i)(F): The employer did not compile written process safety information including design codes and standards employed:

a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to develop and compile process safety information related to the design codes and standards used for the design and construction of equipment used at the new EO plant such as but not limited to the following: ASME B16.34, API 620, API 618, API 674, NFPA 14, NFPA 15, NFPA 20, NFPA 22, NFPA 24, NFPA 72, NFPA 101, NFPA 496, NFPA 2113, ISA 84.00.01, etc., contributing to employee exposure to the toxic, fire, and explosion hazards posed by ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	06/20/2019
Proposed Penalty:	\$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 4 Type of Violation: **Serious**

29 CFR 1910.119(d)(3)(i)(G): Information pertaining to the equipment in the process did not include material and energy balances for processes built after May 26, 1982:

a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to develop and compile process safety information related to material and energy balances for the EO plant process streams, including the EO reaction process, contributing to employee exposure to the toxic, fire, and explosion hazards posed by ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	06/20/2019
Proposed Penalty:	\$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 5 Type of Violation: Serious

29 CFR 1910.119(d)(3)(ii): The employer did not document that equipment complies with recognized and generally accepted good engineering practices (RAGAGEP):

a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, due to the infiltration of EO into the EO control building, employees who remained in the EO control room to conduct emergency operations were exposed to toxic and explosion/fire hazards when the employer did not document that it complied with its chosen RAGAGEP, API 752, Management of Hazards Associated with Location of Process Plant Permanent Buildings, Sections 7.6.2, 8.4.1 and 8.4.2. The EO control building was not designated by the employer as a shelter-in-place and did not include equipment/building features that would have protected the control building, control equipment, and its employees from the infiltration of EO vapors such as:

sensors in the air intakes to alert the occupants of the ingress of hazardous materials,
means to automatically limit air ingress from HVAC systems in the event of a sensor alarm;
appropriately sealed windows and doors
equipment for operators who must remain in the control room, such as a breathing air manifold system with supplied air masks, or SCBAs, and,
equipment to facilitate an escape, if warranted, such as 5- or 10-minute escape packs that would provide enough clean air to allow the operators to evacuate to a safe location.

b) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to document it complied with its chosen RAGAGEP, ASME B31.3 (2016), Process Piping, Section 335.2.2, Bolting Torque when it assembled piping flanges in ethylene oxide service that were not torqued to their proper design loading including the flange bolts on the 1½ inch vent line of the Purification Column Steam Reboiler E-430 in Area 400 that was involved in the ethylene oxide release. In addition, approximately 85 other flanges were found post-incident to be under torqued in Areas 400 and 1400 of the EO plant.

c) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to document it complied with its chosen recognized and RAGAGEP, ASME B31.3 (2016), Process Piping, Section 308.4 Gaskets, when it assembled a piping flange with a gasket that was not suitable for the process conditions, i.e. the gasket material was not compatible for ethylene oxide service. This piping flange and gasket were part of the 1½ inch vent line of the Purification Column Steam

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Reboiler E-430 in Area 400 that was involved in the release of ethylene oxide.

d) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to document it complied with RAGAGEP, such as ASME PCC-1 (2013), Guidelines for Pressure Boundary Bolted Flange Joint Assembly, Section 8.1, Installation of Bolts, when it installed bolts for assembly of a piping flange, that were made of B7 Alloy material and did not meet the bolt design specification which required B8 stainless steel bolts for the application per specification. This piping flange and incorrect bolting materials were used on the 1½ inch vent line located on the Purification Column Steam Reboiler, E-430 in Area 400 that was involved with the release of ethylene oxide.

e) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer did not document that it complied with RAGAGEP such as:

NFPA 15, Standard for Water Spray Fixed Systems for Fire Protection Sections 7.1.10.3, 7.5.2, 9.2.1, and 9.2.2 for fixed water spray systems (deluge system);

NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection Sections 4.6.4.1 and 4.6.2 for diesel firewater pumps and jockey pump;

API 2510 [as referenced in employers chosen RAGAGEP, the Ethylene Oxide Product Stewardship Manual Third Edition (ACC)] Section 10.3.1.5 requires 4 hour firewater supply; and,

NFPA 22, Standard for Water Tanks for Private Fire Protection Section 4.1.1 for firewater tank; when the existing firewater system was not adequately sized and designed to meet the additional firewater demands (e.g. simultaneous operation of deluge system and fire monitors, and other non-firewater users) for mitigating an ethylene oxide release at the ECO[EP1] Plant. This contributed to the firewater supply being undersized for a high firewater demand case involving flow from multiple users.

These conditions contributed to employee exposure to the toxic, fire, and explosion hazards posed by ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: 06/20/2019
Proposed Penalty: \$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 6 Type of Violation: **Serious**

29 CFR 1910.119(e)(3)(iii): The process hazard analysis did not address engineering and administrative controls applicable to the hazards and their interrelationships such as appropriate application of detection methodologies to provide early warning of releases:

- a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to address the need for an effective advanced warning ethylene oxide area detection system for employees required to investigate an ethylene oxide release.
- b) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employers facility siting study (Croda Atlas Point Facility Siting Study Revised Report, November 2, 2015) identified that the EO Control Room was in an area of potential toxic release consequences/hazards, however, neither the facility siting report or the 2016 Updated PHA included engineering controls (i.e., equipment/building features) such as, but not limited to, the following:
 - · sensors in the air intakes to alert the occupants of the ingress of hazardous materials,
 - · means to automatically limit air ingress from HVAC systems in the event of a sensor alarm;
 - · appropriately sealed windows and doors
 - · appropriate PPE; or
 - · administrative controls such as emergency procedures that designate the building as a place to immediately evacuate upon detection/notification of a toxic/flammable materials release.
- c) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to address the adequacy of the firewater supply with respect to the deployment of the water deluge systems and firewater monitors to contain and quell a release of ethylene oxide.

These conditions contributed to employee exposure to the toxic, fire, and explosion hazards posed by ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: 06/20/2019
Proposed Penalty: \$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 7 Type of Violation: Serious

29 CFR 1910.119(e)(3)(v): The process hazard analysis did not address facility siting:

- a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to address the impact of toxic releases on the ECO Plant Control Building, a critical building that is occupied by operators, who conduct emergency operations. This building was not designed as a shelter-in-place location for protecting employees from toxic exposure to ethylene oxide during an emergency release.
- b) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to address a suitable location for the nitrogen purge valves or a suitable means to activate these manual valves in the event of an emergency release that prevented operators from accessing these valves.

These conditions contributed to employee exposure to the toxic, fire, and explosion hazards posed by ethylene oxide.

Abatement Note: Feasible means of abatement of this hazard could include relocating the T-430 manual nitrogen purge valve to a safe, accessible location or consider installing an automatic nitrogen sweeping system (e.g. valves and instrumentation) to allow for remote de-inventory of the T-430 from the DCS.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	06/20/2019
Proposed Penalty:	\$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 8 Type of Violation: **Serious**

29 CFR 1910.119(e)(3)(vi): The process hazard analysis did not address human factors:

a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employers process hazard analysis failed to address human factors relating to the confusing displays on the Control Room Distributed Control System user-machine interface (e.g., Human Machine Interface) for activating the firewater deluge system resulting in operator errors, such as the erroneous activation of incorrect deluge systems during an emergency release, contributing to employee exposure to ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	07/12/2019
Proposed Penalty:	\$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 9 Type of Violation: **Serious**

29 CFR 1910.119(f)(1)(i)(D): The employer did not develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information that addressed emergency shutdown including the conditions under which emergency shutdown is required, and the assignment of shutdown responsibility to qualified operators to ensure that emergency shutdown is executed in a safe and timely manner:

a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to develop and implement written operating procedures to de-inventory the ethylene oxide from equipment, such as (but not limited to) that contained in the Purification Tower (T-430), to divert ethylene oxide away from Purification Column Steam Reboiler E-430, the location of the compromised flange leaking ethylene oxide, contributing to employee exposure to ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	06/20/2019
Proposed Penalty:	\$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 10 Type of Violation: Serious

29 CFR 1910.119(f)(1)(i)(E): The employer did not develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information that addressed emergency operations:

- a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to develop and implement written operating procedures to identify the correct deluge system(s) to activate in the event of an ethylene oxide leak.
- b) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to develop and implement written operating procedures to follow in order to manage firewater supply during its use in an emergency.

These conditions contributed to employee exposure to the toxic, fire, and explosion hazards posed by ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: 06/20/2019
Proposed Penalty: \$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 11 Type of Violation: Serious

29 CFR 1910.119(g)(1)(i): The employer did not train each employee in the operating procedures as specified in paragraph (f) of 29 CFR 1910.119:

- a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to train employees on how to manage ethylene oxide leaks.
- b) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to train employees on how to use fire protection systems;
- c) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to train employees on the correct use and activation of the water deluge system; and,
- d) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to train employees on the consequences of deviation with respect to effective measures to mitigate hazards.

The hazardous conditions listed in the above instances exposed employees to toxic, fire, and explosion hazards posed by ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	06/20/2019
Proposed Penalty:	\$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 12 Type of Violation: Serious

29 CFR 1910.119(i)(2)(i): Construction and equipment was not in accordance with design specifications:

a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employers PSSR failed to assure that the flange joint assembly for the 1 1/2-inch-diameter vent line on the Purification Column Steam Reboiler (E-430) in Area 400 was installed/constructed in accordance with design specifications with respect to flange assembly (i.e. the gasket and bolt material of construction, and the bolt torqueing did not meet the design specification), resulting in failure of the flange assembly and employee exposure to ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: 08/02/2019
Proposed Penalty: \$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 13 Type of Violation: Serious

29 CFR 1910.119(i)(2)(ii): The pre-startup safety review did not confirm that safety, operating, maintenance, and emergency procedures were in place and were adequate prior to the introduction of highly hazardous chemicals into a process:

- a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to assure that Control Room evacuation procedures in the event of toxic ethylene oxide infiltration were developed and implemented to minimize employee exposure to ethylene oxide.
- b) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to assure that emergency operating procedures were developed and implemented to mitigate an ethylene oxide leak including specific steps to isolate/de-inventory quantities of ethylene oxide to a safe location.
- c) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to assure that written[HA-O2] procedures were developed and implemented for 1) the operation of the deluge systems in the Control Room and, 2) for managing firewater usage, were in place and adequate.
- d) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to assure that written [HA-O3] procedures were developed and implemented which would enable connection to other firewater make-up sources, such as to Suez water, in order to maximize available water supply during an emergency release.
- e) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to assure that written [HA-O4] procedures were developed and implemented for operating the fire pumps and fire water tank at the Powerhouse.

The hazardous conditions listed in the above instances exposed employees to toxic, fire, and explosion hazards posed by ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	07/12/2019
Proposed Penalty:	\$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 14 Type of Violation: Serious

29 CFR 1910.119(i)(2)(iii): The pre-startup safety review did not confirm that for new facilities, a process hazard analysis (PHA) was completed before startup;

a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to perform a final process hazard analysis to ensure that all hazards were identified, evaluated and controlled before startup. The PHA update in 2016 did not identify process hazards such as how the firewater system did not take into account the flow from multiple users when designing the system for the maximum firewater demand. In addition, the DCS graphical interface for the firewater deluge system was difficult to understand resulting in the incorrect deluge system being activated, the control building was not designed to prevent toxic vapor ingress, and the nitrogen purge system for the 430 EO Purification Column could not be accessed during an EO release, resulting in employee exposure to ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: 07/12/2019
Proposed Penalty: \$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 15 Type of Violation: Serious

29 CFR 1910.119(i)(2)(iv): The PSSR conducted by the employer did not assure that each employee involved in operating a process was trained prior to startup/introduction of highly hazardous chemicals into a process:

a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employers PSSR failed to ensure that employees were trained on how to properly use the firewater system, the emergency shutdown system for the EO processes, and how to execute emergency actions based on the emergency response plan for the EO plant, resulting in employee exposure to flammable and toxic hazards from the ethylene oxide release.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: 06/20/2019
Proposed Penalty: \$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 16 Type of Violation: Serious

29 CFR 1910.119(j)(6)(ii): Appropriate checks and inspections were not performed to assure that equipment was installed properly and consistent with design specifications and the manufacturer's instructions:

- a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to assure that pipe joints were assembled correctly. In particular, the employer failed to recognize that a gasket, made of materials incompatible with ethylene oxide, was used on a vent line flange at Reboiler E-430, part of the Ethylene Oxide Purification Section.
- b) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to assure that the studs used in the flange assembly were constructed of the correct materials.
- c) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to assure that piping flanges were torqued correctly.

These conditions contributed to employee exposure to the toxic, fire, and explosion hazards posed by ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: 07/12/2019
Proposed Penalty: \$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 17 Type of Violation: Serious

29 CFR 1910.119(n): The employer did not establish an emergency plan for the entire plant in accordance with the provisions of 29 CFR 1910.38:

a) Croda, Inc., New Castle, Delaware - On or about November 25, 2018, the employer failed to develop and implement procedures to be followed by Ethylene Oxide Batch Plant employees who remain to operate critical plant equipment before they evacuate.

One feasible means of abatement would be to comply with 29 CFR 1910.38(c)(3).

b) Croda, Inc., New Castle, Delaware - On or about November 25, 2018, the employer failed to include procedures to account for all employees after evacuation due to an emergency release of ethylene oxide.

One feasible means of abatement would be to comply with 29 CFR 1910.38(c)(4).

c) Croda, Inc., New Castle, Delaware - On or about November 25, 2018, the employer failed to include the name and job title of every employee who may be contacted by employees who need more information about the plan or an explanation of their duties under the plan.

One feasible means of abatement would be to comply with 29 CFR 1910.38(c)(6).

These conditions contributed to employee exposure to the toxic, fire, and explosion hazards posed by ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: 06/20/2019
Proposed Penalty: \$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

The alleged violations below have been grouped because they involve similar or related hazards that may increase the potential for injury or illness.

Citation 1 Item 18 a Type of Violation: **Serious**

29 CFR 1910.120(q)(2)(i): The employer did not develop and implement an emergency response plan to address pre-emergency planning and coordination with outside parties:

a) Croda, Inc., New Castle, DE - On or about November 25, 2018, the employer failed to adequately protect employees from toxic exposure to ethylene oxide during an emergency release in that planning and coordination with outside parties, prior to an emergency, was not complete, contributing to employee exposure to toxic, fire, and explosion hazards posed by ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	07/12/2019
Proposed Penalty:	\$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 18 b Type of Violation: **Serious**

29 CFR 1910.1047(h)(1)(i): A written plan for emergency situations was not developed for each ethylene oxide workplace where there was the possibility of an emergency:

a) Croda Inc., New Castle, Delaware - On or about November 25, 2018, the employer failed to develop a written plan for emergency situations, contributing to employee exposure to ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

06/20/2019

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

The alleged violations below have been grouped because they involve similar or related hazards that may increase the potential for injury or illness.

Citation 1 Item 19 a Type of Violation: **Serious**

29 CFR 1910.120(q)(2)(xi): The employer did not develop an emergency response plan for emergencies addressing PPE and emergency equipment:

a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to address PPE, such as air-supplied respirators, for employees remaining in the Control Room during an emergency ethylene oxide release, contributing to employee exposure to ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: 06/20/2019
Proposed Penalty: \$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 19 b Type of Violation: **Serious**

29 CFR 1910.1047(h)(1)(ii): The ethylene oxide emergency plan did not specifically provide that employees engaged in correcting emergency conditions be equipped with required respiratory protection until the emergency is abated:

a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to plan to equip operators responding to an emergency release of ethylene oxide with respiratory protection, contributing to employee exposure to ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

06/20/2019

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 20 Type of Violation: Serious

29 CFR 1910.165(b)(1): The employee alarm system did not provide warning for necessary emergency action as called for in the emergency action plan, or for reaction time for safe escape of employees from the workplace or the immediate work area, or both:

a) Croda, Inc., New Castle, Delaware - On or about November 25, 2018, the employer failed to activate the emergency alarm system, prolonging the potential for employee exposure to the hazards of ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: 06/20/2019
Proposed Penalty: \$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 21 Type of Violation: Serious

29 CFR 1910.1047(h)(2): Employees were not immediately evacuated from the area when exposed to ethylene oxide during an emergency situation:

a) Croda, Inc., New Castle, Delaware - On or about November 25, 2018, the employer failed to immediately evacuate employees exposed to ethylene oxide during an emergency release of ethylene oxide.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	06/20/2019
Proposed Penalty:	\$11934.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720

Citation 1 Item 22 Type of Violation: **Serious**

29 CFR 1910.1047(i)(1)(B): Medical examinations and consultations were not made available to all employees who had been exposed to ethylene oxide in an emergency situation:

a) Ethylene Oxide Batch Plant, Croda, Inc. - On or about November 25, 2018, the employer failed to ensure that medical examinations and consultations, in accordance with paragraph (i) of this Section were made available to employees exposed to ethylene oxide during an emergency release.

ABATEMENT NOTE: The OSHA Ethylene Oxide Standard, 29 CFR 1910.1047 mandates that medical examinations & consultations be in accordance with subparagraphs: (i)(2) - frequency and content; (i)(3) - information provided to the employer; and, (i)(4) - physician's written opinion.

Pursuant to 29 CFR 1903.19, the employer must submit abatement certification and documentation, required within 10 days after abatement date. The certification shall include a statement that abatement is complete, the date and method of abatement, and state that employees and their representatives were informed of this abatement. Abatement documentation shall include documents demonstrating that abatement is complete, such as evidence of the purchase or repair of equipment, photographic or video evidence of abatement or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: 06/20/2019
Proposed Penalty: \$11934.00

Kristin Ecr
for **Erin G. Patterson**
Area Director

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor
Occupational Safety and Health Administration
919 Market Street
Suite 900
Wilmington, DE 19801



INVOICE / DEBT COLLECTION NOTICE

Company Name: Croda Inc
Inspection Site: 315 Cherry Lane, New Castle, DE 19720
Issuance Date: 05/24/2019

Summary of Penalties for Inspection Number	1361878
Citation 1, Serious	\$262548.00
TOTAL PROPOSED PENALTIES	\$262548.00

To avoid additional charges, please remit payment promptly to this Area Office for the total amount of the uncontested penalties summarized above. Make your check or money order payable to: "DOL-OSHA". Please indicate OSHA's Inspection Number (indicated above) on the remittance. You can also make your payment electronically on www.pay.gov. On the left side of the pay.gov homepage, you will see an option to Search Public Forms. Type "OSHA" and click Go. From the results, click on **OSHA Penalty Payment Form**. The direct link is <https://www.pay.gov/paygov/forms/formInstance.html?agencyFormId=53090334>. You will be required to enter your inspection number when making the payment. Payments can be made by credit card or Automated Clearing House (ACH) using your banking information. Payments of \$25,000 or more require a Transaction ID, and also must be paid using ACH. If you require a Transaction ID, please contact the OSHA Debt Collection Team at (202) 693-2170.

OSHA does not agree to any restrictions or conditions or endorsements put on any check, money order, or electronic payment for less than the full amount due, and will cash the check or money order as if these restrictions or conditions do not exist.

If a personal check is issued, it will be converted into an electronic fund transfer (EFT). This means that our bank will copy your check and use the account information on it to electronically debit your account for the amount of the check. The debit from your account will then usually occur within 24 hours and will be shown on your regular account statement. You will not receive your original check back. The bank will destroy your original check, but will keep a copy of it. If the EFT cannot be completed because of insufficient funds or closed account, the bank will attempt to make the transfer up to 2 times.

Pursuant to the Debt Collection Act of 1982 (Public Law 97-365) and regulations of the U.S. Department of Labor (29 CFR Part 20), the Occupational Safety and Health Administration is required to assess interest, delinquent charges, and administrative costs for the collection of delinquent penalty debts for violations of the Occupational Safety and Health Act.

Interest: Interest charges will be assessed at an annual rate determined by the Secretary of the Treasury on all penalty debt amounts not paid within one month (30 calendar days) of the date on which the debt amount becomes due and payable (penalty due date). The current interest rate is one percent (1%). Interest will accrue from the date on which the penalty amounts (as proposed or adjusted) become a final order of the Occupational Safety and Health Review Commission (that is, 15 working days from your receipt of the Citation and Notification of Penalty), unless you file a notice of contest. Interest charges will be waived if the full amount owed is paid within 30 calendar days of the final order.

Delinquent Charges: A debt is considered delinquent if it has not been paid within one month (30 calendar days) of the penalty due date or if a satisfactory payment arrangement has not been made. If the debt remains delinquent for more than 90 calendar days, a delinquent charge of six percent (6%) per annum will be assessed accruing from the date that the debt became delinquent.

Administrative Costs: Agencies of the Department of Labor are required to assess additional charges for the recovery of delinquent debts. These additional charges are administrative costs incurred by the Agency in its attempt to collect an unpaid debt. Administrative costs will be assessed for demand letters sent in an attempt to collect the unpaid debt.


for **Erin G. Patterson**
Area Director

5/24/19
Date